



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0221; Directorate Identifier 2010-SW-082-AD]

RIN 2120-AA64

Airworthiness Directives; Spectrolab Nightsun XP Searchlight

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for a certain Spectrolab Nightsun XP Searchlight Assembly (searchlight) installed on, but not limited to, Agusta S.p.A. (Agusta) Model AB139 and Model AW139 helicopters, Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters, and Eurocopter Deutschland GmbH (Eurocopter) Model EC135 and Model MBB-BK 117 C-2 helicopters. This proposed AD would require, before further flight, inserting information into the Normal Procedures section of the Rotorcraft Flight Manual (RFM), a daily check of the searchlight, and at a specified time interval or if you find certain conditions, modifying any affected searchlight gimbal assembly. This proposed AD is prompted by a report of a searchlight vibrating and an investigation that revealed that the gimbal azimuth top nut was loose. A loose nut, if not detected and corrected, could result in a gap between the rubber edging of the top shroud and the gimbal frame, leading to degradation of pointing accuracy and stability performance of the searchlight, and excessive vibration. If the nut

were to entirely disengage, the searchlight could disconnect partially or totally from the helicopter, resulting in damage to the helicopter and injury to persons on the ground.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- **Federal eRulemaking Docket:** Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- **Fax:** 202-493-2251.

- **Mail:** Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- **Hand Delivery:** Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact Spectrolab, Inc. ATTN: Saul Vargas, 12500 Gladstone Ave., Sylmar, CA 91342, telephone (818) 365-4611, fax (818) 361-5102, or on the internet at <http://www.spectrolab.com>. You may

review a copy of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Jim Grigg, Manager, Safety Management Group, DOT/FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone: (817) 222-5126; fax: (817) 222-5961; e-mail: jim.grigg@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued AD No.: 2010-0237R2, dated December 14, 2010, to correct an unsafe condition for the Spectrolab Nightsun XP Searchlights installed on the following model helicopters: Agusta AB139 and AW139, Sikorsky S-92A, and Eurocopter MBB-BK 117 C2 and EC 135 series, if equipped with Spectrolab Nightsun XP Gimbal Assembly part number (P/N) 033295 series, used on Spectrolab Nightsun XP Searchlight Assembly System P/Ns 033338 series. EASA advises that a maintenance organization reported an incident where vibration was associated with the Spectrolab Nightsun XP Searchlight. EASA states in its AD that an investigation revealed the Gimbal Azimuth Top Hex Nut was loose. This condition, if not detected and corrected, could lead to a gap between the rubber edging of the top shroud and the Gimbal frame, resulting in degradation of pointing accuracy and stability performance, and pose excessive vibration. If the nut were to entirely disengage, the Searchlight/Gimbal could disconnect from the helicopter and remain attached solely by the internal cable harness or separate totally, resulting in damage to the helicopter or injury to persons on the ground.

FAA's Determination

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Related Service Information

Spectrolab has issued Nightsun XP Searchlight Safety and Service Bulletin #SL 0810-01, Amendment #2, dated September 24, 2010 (SB), which describes a design change that incorporates two positive locking mechanisms: a torque value and safety wire applied to the nut. These locking mechanisms prevent the gimbal azimuth top nut from loosening and allowing the center shaft to rotate out. The following table lists the Nightsun systems containing one of these gimbal assemblies by P/N and revision:

Affected Systems and P/N

System P/N	Nomenclature	Affected Revisions
033338	Nightsun XP Searchlight System	A through D
033338-3	Nightsun XP Searchlight System	A through D
033338-4	Nightsun XP Searchlight System	A through D
033704	IFCO Nightsun XP Searchlight System	A through C
033704-1	IFCO Nightsun XP Searchlight System	A through C

Spectrolab has also issued Nightsun XP Searchlight System Kit and Procedure to Incorporate EASA AD 2010-0183 Conformance, 034374 Revision NC, approved September 28, 2010 (Kit and Procedure). Once modified in accordance with the Kit and Procedure, the Nightsun XP gimbals are re-identified with a new nameplate and overlay from a P/N 033295-1 to 033295-3, or P/N 033295-2 to 033295-4.

EASA classified this modification as mandatory and issued EASA AD No.: 2010-0237R2, dated December 14, 2010, to ensure the continued airworthiness of helicopters with the affected system installed.

Proposed AD Requirements

This proposed AD would require:

- Before further flight, inserting a copy of the SB into the Normal Procedures section of the RFM.
- Before the first flight of each day, visually checking the searchlight installation for a gap between the top shroud rubber edging, P/N 033381, and the side covers, P/N 033286, with slight pressure applied to either side of the searchlight. The edging should remain in physical contact with the side covers when slight pressure is applied to the searchlight. If the edging does not remain in contact, the gimbal assembly must be modified and re-identified. An owner/operator (pilot) holding at least a Private Pilot Certificate may perform this visual check and must show compliance by updating the helicopter maintenance records in accordance with 14 CFR §§ 43.9(a)(1)-(4) and 91.417(a)(2)(v).
- Within 100 hours time-in-service (TIS), modify and re-identify the gimbal assembly in accordance with the Kit and Procedure, steps 1 through 13.

Differences between this Proposed AD and the Service Information

The differences between this AD and the EASA AD are:

- We require modifying and re-identifying the searchlight within 100 hours TIS, while the EASA AD imposes a calendar date for compliance.
- The EASA AD requires contacting the design (change) approval holder if discrepancies are found during the inspection of the searchlight installation, and we do not require this action.

Costs of Compliance

We estimate that this proposed AD would affect 6 helicopters of U.S. registry. We also estimate that it would take minimal time to insert the service bulletin into the RFM, and about 3.0 work hours per helicopter to modify the searchlight. At an average labor rate of \$85 per work hour, this amounts to \$255 per helicopter. Required parts would cost about \$1,000 per helicopter. Based on these figures, we estimate the total cost impact of the proposed AD on U.S. operators to be \$1,255 per helicopter, or \$7,530 for the fleet.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States,

or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

SPECTROLAB NIGHTSUN XP SEARCHLIGHT: Docket No. FAA-2012-0221;
Directorate Identifier 2010-SW-082-AD.

(a) **Applicability.** This AD applies to Spectrolab Nightsun XP Searchlight Assembly Systems with gimbal assembly part number (P/N) 033295-1 or 033295-2, installed on, but not limited to, Agusta S.p.A. Model AB139 and Model AW139 helicopters, Sikorsky Aircraft Corporation Model S-92A helicopters, and Eurocopter Deutschland GmbH Model EC135 and Model MBB-BK 117 C-2 helicopters, certificated in any category. The searchlight assembly system P/Ns and revision level using one of the two affected gimbal assembly P/Ns are listed in Table 1 of this AD.

Table 1 - Affected Systems and P/N

System P/N	Nomenclature	Affected Revisions
033338	Nightsun XP Searchlight System	A through D
033338-3	Nightsun XP Searchlight System	A through D
033338-4	Nightsun XP Searchlight System	A through D
033704	IFCO Nightsun XP Searchlight System	A through C
033704-1	IFCO Nightsun XP Searchlight System	A through C

(b) **Unsafe Condition.** This proposed AD is being issued to prevent the Searchlight/Gimbal from disconnecting from the helicopter and remaining attached solely by the internal cable harness, or separating totally, resulting in damage to the helicopter or injury to people on the ground.

(c) **Compliance.** You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(d) **Required Actions.**

(1) Before further flight, insert a copy of Nightsun XP Searchlight Safety and Service Bulletin #SL 0810-01, Amendment #2, dated September 24, 2010, into the Normal Procedures section of the Rotorcraft Flight Manual.

(2) Before the first flight of each day, visually check the searchlight installation for a gap between the top shroud rubber edging, P/N 033381, and the side covers, P/N 033286, with slight pressure applied to either side of the searchlight. The edging must remain in physical contact with the side covers when slight pressure is applied to the searchlight.

(3) The actions required by paragraph (d)(2) of this AD may be performed by the owner/operator (pilot) holding at least a Private Pilot Certificate, and must be entered into the helicopter maintenance records in accordance with 14 CFR §§ 43.9(a)(1)-(4) and 91.417(a)(2)(v). The record must be maintained as required by 14 CFR §§ 91.417, 121.380, or 135.439.

(4) If the edging does not remain in physical contact with the side cover when slight pressure is applied to the searchlight in accordance with the requirements of paragraph (d)(2) of this AD, before further flight, with an affected Spectrolab Nightsun XP Searchlight assembly system installed, modify and re-identify the gimbal assembly in accordance with paragraph (d)(5) of this AD.

(5) Within 100 hours time-in-service (TIS), modify and re-identify the gimbal assembly in accordance with Nightsun XP Searchlight System Kit and Procedure to Incorporate EASA AD 2010-0183 Conformance, 034374 Revision NC, approved September 28, 2010, steps 1 through 13.

(6) Accomplishing paragraph (d)(5) of this AD is terminating action for the requirements of this AD.

(e) Alternative Methods of Compliance (AMOC).

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Jim Grigg, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone: (817) 222-5126; fax: 817-222-5961; e-mail: jim.grigg@faa.gov.

(2) For operations conducted under a Part 119 operating certificate or under Part 91, Subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(f) Additional Information. For service information identified in this AD, contact Spectrolab, Inc. ATTN: Saul Vargas, 12500 Gladstone Ave., Sylmar, CA 91342, telephone (818) 365-4611, fax (818) 361-5102, or on the internet at <http://www.spectrolab.com>. You may review a copy of this information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(g) The subject of this AD is addressed in European Aviation Safety Agency AD No.: 2010-0237R2, dated December 14, 2010.

(h) **Subject.** Joint Aircraft Service Component (JASC) Code: 3340, Exterior Lighting.

Issued in Fort Worth, Texas, on February 24, 2012.

Lance T. Gant,

Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.

[FR Doc. 2012-5621 Filed 03/07/2012 at 8:45 am; Publication Date: 03/08/2012]